



This document is a portion of the *Cruise Ship Discharge Assessment Report (Assessment Report)*, published on December 29, 2008. The reference number is EPA 842-R-07-005.

The entire Assessment Report can be accessed at
http://www.epa.gov/owow/oceans/cruise_ships/disch_assess.html.

Cruise Ship Discharge Assessment Report

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Appendix A. *List of Acronyms*

ACSI	Alaska Cruise Ship Initiative
ADEC	Alaska Department of Environmental Conservation
ALBD	Available Lower Berth Day
APPS	Act to Prevent Pollution from Ships
AWT	Advanced Wastewater Treatment
AWTs	Advanced Wastewater Treatment systems
BOD	biological oxygen demand
Cal/EPA	California Environmental Protection Agency
CCC	criterion continuous concentration
CELB	Center for Environmental Leadership in Business
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESQG	conditionally exempt small quantity generator
CFR	Code of Federal Regulations
C.L.	Confidence Limit
CLIA	Cruise Lines International Association
CMC	criteria maximum concentration
COA	Certificate of Adequacy
COTP	Captain of the Port
CWA	Clean Water Act
CRS	Congressional Research Service
DAF	dissolved air flotation

DOC Document of Compliance

EPA U.S. Environmental Protection Agency

EEZ U.S. Exclusive Economic Zone

FR Federal Register

gal/day/pers gallons per day per person

GAO U.S. General Accounting Office (now the U.S. Government Accountability Office)

HEM hexane extractable material

ICCL International Council of Cruise Lines

IFO intermediate fuel oil

IMO International Maritime Organization

ISM International Safety Management

ISPPC International Sewage Pollution Prevention Certificate

LQG large quantity generator

MARPOL International Convention for the Prevention of Pollution from Ships (MARPOL 73/78)

MBR Membrane Bioreactor

MEPC Marine Environment Protection Committee

MPN most probable number

MPRSA Marine Protection, Research, and Sanctuaries Act

MSD marine sanitation device

NC not collected

ND not detected

NDZ no-discharge zone

NH₃ unionized ammonia
NH₄⁺ ionized ammonia
nm nautical mile
NMSA National Marine Sanctuaries Act
NOAA National Oceanic and Atmospheric Administration
NOx nitrous oxide
NPS National Park Service
NPDES National Pollutant Discharge Elimination System
NR not recorded
NRC National Research Council
NRWQC National Recommended Water Quality Criteria
OECD Organization for Economic Co-operation and Development
OPA Oil Pollution Act of 1990
OWS Oily Water Separator
PAH polycyclic aromatic hydrocarbon
POTWs publicly owned treatment works
ppm parts per million
Pub. L. Public Law
RCRA Resource Conservation and Recovery Act
RCCL Royal Caribbean Cruises Ltd.
SMS Safety Management System
SOLAS International Convention for the Safety of Life at Sea
SQG small quantity generator

TOC total organic carbon
U.S. United States
USCG United States Coast Guard
UV ultraviolet
U.S.C. United States Code
VGP Vessel General Permit
WHO World Health Organization

Appendix B. State Efforts to Address Discharges from Cruise Ships

The Cruise Ship Discharge Assessment Report (Assessment Report) presents on-going actions by the federal government to address five primary waste streams from cruise ships (sewage, graywater, oily bilge water, solid waste, and hazardous waste). Based on the public comments received on the draft of the report, as well as other information gathered, a wide range of options and alternatives is listed for each abovementioned waste stream. Identification of any particular option does not imply EPA recommendation or preference for future action, or that EPA has determined that any of these options are necessary or feasible, or that EPA believes a change to the status quo is warranted, or that EPA or any other entity has the legal authority to implement that option. Nevertheless, the range of options and alternatives presented in this Assessment Report may be useful to government entities such as state, local, and tribal entities that are interested in addressing cruise ship waste streams.

There are a number of states (Alaska, California, Florida, Hawaii, Maine, and Washington), as well as Native American Tribes, that have on-going efforts to address the frequency of cruise ship traffic and the range of issues associated with discharges from these vessels. Some states have taken action independent of federal requirements by passing legislation controlling cruise ship discharges, creating industry partnership programs under which cruise lines voluntarily adopt certain environmental practices, and/or establishing No Discharge Zones where the discharge of sewage from vessels (whether treated or not) is prohibited. Listed below are some links to access current state efforts.

State	General Information Regarding Cruise Ship Efforts
Connecticut	http://www.ctcruiseship.com/
Florida	http://www.dep.state.fl.us/secretary/news/2000/00-MOUcruise.htm http://www.dep.state.fl.us/water/wastewater/vessel.htm
Hawaii	http://www.co.maui.hi.us/index.asp?NID=631 http://healthuser.hawaii.gov/health/about/pr/2003/03-94epo.html http://www.epa.gov/owow/oceans/cruise_ships/hawaiiimou.pdf
Maine	http://www.state.me.us/dep/blwq/topic/vessel/cruiseship/rule/history.htm http://www.state.me.us/dep/blwq/topic/vessel/LCPV/index.htm http://www.barharbormaine.gov/xhtml/171/Permalink/363/
Washington	http://www.ecy.wa.gov/programs/wq/wastewater/cruise_mou/index.html

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